R E P O R T R E S U M E S

ED 016 872 VT 005 037

RESEARCH VISIBILITY. VOCATIONAL EDUCATION IS PEOPLE--YOUTH WITH SPECIAL NEEDS.

BY- LAW, GORDON F., ED.
AMERICAN VOCATIONAL ASSN., WASHINGTON, D.C.

REPORT NUMBER BR-7-0633 PUB DATE NOV 67
GRANT OEG-2-7-070633
EDRS PRICE MF-$0.25 HC-$0.72 16P.

DESCRIPTORS- *BIBLIOGRAPHIES, *VOCATIONAL EDUCATION, TECHNICAL EDUCATION, RESEARCH REVIEWS (PUBLICATIONS), *DISADVANTAGED YOUTH, CURRICULUM, *TEACHER EDUCATION, DEVELOPMENTAL PROGRAMS, EXPERIMENTAL PROGRAMS, DEMONSTRATION PROJECTS, OCCUPATIONAL GUIDANCE, PILOT PROJECTS, *EDUCATIONAL RESEARCH, COOPERATIVE EDUCATION, HIGH SCHOOLS,

TWELVE RESEARCH REVIEWS IN THIS ISSUE PERTAIN TO YOUTH WITH SPECIAL NEEDS, ONE OF THE NINE MAJOR AREAS OF CONCERN IDENTIFIED BY THE PANEL OF CONSULTANTS ON VOCATIONAL EDUCATION. THEY ARE ORGANIZED UNDER THE TOPICS--(1) OCCUPATIONALLY ORIENTED PROGRAMS WHICH INCLUDES IDENTIFICATION OF WORK CONCEPTS, (2) COOPERATIVE SCHOOL AND WORK PROGRAMS, WHICH INCLUDES EXPERIMENTAL INSTITUTE FOR TEACHER COORDINATORS, (3) DIVERSITY AND FLEXIBILITY, WHICH INCLUDES A HOME ECONOMICS CONFERENCE ON DISADVANTAGED YOUTH AND EDUCATIONAL SYSTEMS PACKAGES, (4) VOCATIONAL GUIDANCE WHICH INCLUDES A DEVELOPMENTAL PROGRAM FOR VOCATIONAL COUNSELORS, AND COLORADO DROPOUT PROJECT, (5) SPECIALLY TRAINED TEACHERS WHICH INCLUDES A TEACHER INSTITUTE FOR RURAL TEACHERS OF THE DISADVANTAGED, AND (6) EXPERIMENTAL AND PILOT PROGRAMS WHICH INCLUDES TEACHER TRAINING IN REINFORCEMENT TECHNIQUES AND INITIAL EMPLOYMENT OF SCHOOL LEAVERS. THREE ITEMS RELATE TO THE SEPTEMBER ISSUE'S SECTION ON HIGH SCHOOL AGE YOUTH AND DEAL WITH SMALL HIGH SCHOOLS, SPECIALIZED INSTRUCTORS, AND EXPERIMENTAL PROGRAMS. THE BIBLIOGRAPHY LISTS THREE OTHER COMPLETED STUDIES AND 35 STUDIES IN PROCESS. "PLAIN TALK," A CONTINUING COLUMN BY THE AUTHOR, DEALS WITH UNANSWERED RESEARCH QUESTIONS RELATIVE TO DISADVANTAGED YOUTH. THIS ARTICLE IS PUBLISHED IN THE "AMERICAN VOCATIONAL JOURNAL," VOLUME 42, NUMBER 11, NOVEMBER 1967. (EM)

ED016872

RESEARCH VISIBILITY

SYNTHESIS / APPLICATION / DISSEMINATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

*"Research Visibility" is a research project of the American Vocational Association. The purpose is to give visibility to significant research: experimental, demonstration and pilot programs; upgrading institutes, seminars and workshops; and other leadership development activities for teachers, supervisors and administrators. The "Research Visibility" report synthesizes important projects which have been reviewed, selected and analyzed for their value to vocational, technical and practical arts educators, guidance personnel, and other leaders in education, manpower and related fields. A composite bibliography of significant research and development materials is included.

The project is cooperatively financed by the American Vocational Association and a Vocational Education Act of 1963 grant (OEG 2-7-070633, project 7-0633; "Synthesis and Application of Research Findings in Vocational Education").

Vocational Education is People

"YOUTH WITH SPECIAL NEEDS"

TABLE OF CONTENTS

- PANEL OF CONSULTANTS REPORT ..... page 65
- OCCUPATIONALLY ORIENTED PROGRAMS ..... page 66
  - Concepts for Youth Orientation
- SCHOOL AND WORK PROGRAMS ..... page 67
  - Preparation of Teacher Coordinators
- DIVERSITY AND FLEXIBILITY ..... page 67
  - Conference for Disadvantaged Youth
  - Validation of Curriculum Systems ..... page 68
- VOCATIONAL GUIDANCE ..... page 68
  - Developmental Program for Counselors
  - Analysis of Dropout Statistics ..... page 69
- SPECIALLY TRAINED TEACHERS ..... page 70
  - Institute To Prepare Teachers and Materials
  - Master Teacher Training Curriculum
  - Production of Motion Picture ..... page 71
- EXPERIMENTAL AND PILOT PROGRAMS ..... page 72
  - Increasing Task Oriented Behavior
  - Study in Communication ..... page 73
  - Initial Employment of School Leavers ..... page 74
- HIGH SCHOOL AGE YOUTH ..... page 75
  - Administrative Workshop
  - Using Specialized Instructors
  - Pilot Program in Business Education ..... page 76
- PLAIN TALK ..... page 77
- BIBLIOGRAPHY ..... page 79
  - Completed Studies
  - Additional Studies
  - Studies in Process

YOUTHS' PROBLEMS AND EDUCATION

The 1962 Report of the Panel of Consultants to President Kennedy, *Education for a Changing World of Work*, devotes considerable attention to the problems of youth with special needs. Characterizing these youth as persons having one or a combination of a whole gamut of handicaps, the report states:

"These students are sometimes called potential dropouts, disinterested, reluctant, disadvantaged, alienated or culturally deprived. Other youth problems are recognized in connection with the minorities, the migrants, the mentally retarded, the emotionally disturbed, and the delinquent. Altogether, the number represented in this classification is very great; the dynamite generated as a result may be social, political, and economic, especially in large population centers."

Research and development projects, relating to Youth With Special Needs which is also the theme of this "Journal" issue, are organized into six topics. These are derived from the six specific recommendations made by the Panel of Consultants—"To improve and redirect vocational education to better serve youth with special needs."

(1) "New occupationally oriented programs of vocational education should be added to the school curriculum designed to lead to employment in jobs known to exist and to be successful educational experiences for students who cannot profit from instruction in the traditional programs.

Dr. Gordon F. Law is editor of "Research Visibility." The organization for this department of the JOURNAL, the pattern for reporting and the writing represent his work.

VT005037

(2) "Cooperative (school-work) programs should be organized wherever possible, so that the student concerned may have the advantage of school experience coordinated with employment;

(3) "Diversity and flexibility should be the keynote of such programs, and instruction should be highly individualized in order to assure the occupational stability of such students when they enter full-time employment.

(4) "Appropriate vocational guidance of practical significance should be made available to each person, and each one trained and employed should be followed up to determine the value of training provided and to secure information leading to improvement of both content and method in future courses;

(5) "Specially trained teachers who understand the variety of needs of disadvantaged youth and who are occupationally competent in the specialized vocational areas represented should be employed for these programs; and

(6) "Experimental and pilot programs should be planned and conducted to develop practices to serve these students more effectively."

Additional Information

Another prime source of information is OE Handbook 8-0038, "The Youth We Haven't Served: A Challenge to Vocational Education," by Barbara Kemp. This excellent publication describes some of the characteristics of the socio-economically handicapped; steps which must be taken to enable young people to succeed in the regular vocational education programs; and, it lists some of the opportunities made available for them by the provisions of the Vocational Education Act of 1963.

Reports that are included under each topic represent a synthesis of findings from completed and available research studies. Other approved and completed projects are given in the Bibliography. Please note, at the end of the Bibliography section, specific information regarding the availability of studies listed.

Topic One: OCCUPATIONALLY ORIENTED PROGRAMS • Those leading to employment • For students who cannot profit from traditional programs

---

3:1 "IDENTIFICATION OF CONCEPTS IMPORTANT FOR YOUTH ORIENTATION TO THE WORLD OF WORK" BY WARREN

In the statement of purpose of this study is the information that "the need for research in this area was urgent. A review of occupational-psychological literature revealed that identification and communication of concepts relating to youth orientation to the world of work was neither formalized nor immediately relevant to the needs of youth. No universally accepted set of concepts or plan was available by which teachers could efficiently and expediently communicate concepts; and

"It was believed the concepts identified would be important to high school youth in guiding them to personal awareness of the demands of the world of work. . . . Further, these concepts would be applicable to youth in most types of employment and in the areas of high school vocational education: agriculture, business and office, distributive, home economics, technical, and trade and industrial."

Conference Activities

During a two-week conference, twenty-four selected high school faculty consultants evaluated relevant materials, resources, and media assembled by project research assistants. The conference program consisted of presentations by speaker-consultants representative of business-industry, government, higher education, youth panels, and a reacting panel of selected consultants who evaluated the concepts identified.

Conference participants evaluated literature reviewed; interacted with speaker consultants and youth panels; and reacted to selected audio-visual media. The concepts were identified and areas noted where media are needed to communicate concepts to students.

For the conference, "concept" was defined as "An abstract idea related to general preparation for employment."

Concepts identified were organized into four major classifications:

• Socio-economic, • Psycho-social, • Communication, and • Individual and family management concepts, all of which related to work.

Semantic Differences in Concepts

A significant finding reported for this study is that "abstract concepts do not communicate *per se*. Semantic differences in concepts existing in our society affect the understanding a person obtains about the world of work. . . ."

This study should be of particular interest to any one who is preparing a course of study or topical outline in occupational orientation. The major concepts identified by the summer conference, which are listed in outline form, may serve as a checklist of topics that could be considered. Also of value would be the bibliography of literature cited and literature reviewed, which contains over two hundred and fifty titles of books and articles.

As further studies relative to youth orientation are made, it may be desirable to test the concepts identified in this study with young people, especially socio-economically disadvantaged ones, to determine how closely these concepts do in fact relate to their occupational aspirations.

Note: As cooperative education programs may have special meaning for disadvantaged youth, an expanded report of the Wisconsin study, which was treated in a former edition of "Research Visibility," is presented here.

1:13 "AN EXPERIMENTAL VOCATIONAL EDUCATION INSTITUTE FOR THE PREPARATION OF TEACHER COORDINATORS OF NEWLY EMERGING HIGH SCHOOL VOCATIONAL PROGRAMS" BY SAMSON

There was a time when cooperative education was thought of as a substitute for a "regular" vocational program, functioning mainly in communities with limited school populations or where extensive material acquisitions for shop or business practice equipment were not feasible. We now find more and more elements of cooperative education associated with vocational schools and programs that do have adequate facilities as the benefits associated with these school-and-work programs have become better known.

The Teacher Coordinator

The most critical ingredient for success in a cooperative program, regardless of the type and size of school setting, is the teacher coordinator. This person needs to have all the skill and ability of a master teacher as well as a number of other special qualities. It is heartening, therefore, to note that the University of Wisconsin has undertaken a program specifically designed to prepare teacher coordinators to develop new vocational education programs in Wisconsin high schools.

A special summer institute prepared 20 vocational teachers who were selected to develop new vocational education programs in Wisconsin's high schools. The design was a combination of five weeks intensified on-campus study and three weeks of full-time field work.

The problems, concerns and successes of first year vocational program development were recorded by weekly planning and progress reports from each school, and by interviews and staff visitation.

Critical incident reports were collected from participants and selected school staff. The summer institute was evaluated. Successful and unsuccessful practices in vocational program development were identified.

Three-hundred and three critical incidents were found. Twenty-two critical requirements were reported. The Chi-Square test was used in determining the significance of differences in comparisons made on community, school and personal factors of participants. It was generally concluded that training institutes for new coordinators should be no less than nine weeks in length; that three weeks of field experience is highly desirable; and that up to six hours per day of intensified institute activity is tolerable.

Critical Factors

Critical factors in new program development are (1) time allotted for coordination, (2) communication effectiveness of coordinator, and (3) competence of coordinator in education and administration of work. State supervisory services need to be intensive during the first year as innovative practices have a high mortality during this period.

A section of this report that should be of value to coordinators of cooperative education, teachers preparing for such positions, or administrators responsible for work-study programs, is the one which describes "effective and ineffective critical incidents in the development of new vocational-education programs."

Here, the experiences of institute participants were related with respect to effective, ineffective and "no action" results obtained for their activities pertaining to each of the following categories: (1) Program Organization, (2) Public Information and Relations, (3) Operation of Program, (4) Staff Relationships, (5) Coordination, (6) Curriculum Planning and Development, and (7) Student Selection, Guidance and Placement.

3:3 "CONFERENCE ON HOME ECONOMICS PROGRAM DEVELOPMENT FOR DISADVANTAGED YOUTH" BY GRAVATT

The two-week conference on Home Economics Program Development for Disadvantaged Youth and Their Families was held at Pennsylvania State University during the summer of 1965. Thirty-six participants were identified as men and women selected for their potential to initiate new Home Economics programs with the disadvantaged.

The conference program included the reading of five papers; field trips to poverty programs in Pittsburgh; a symposium entitled "New Home Economics Programs With the Disadvantaged"; a report of Home Economics extension programs dealing with disadvantaged families in Pennsylvania; and a series of workshop sessions by conferees.

Information included in the five main presentations, which are copied in the report, should be of special interest to Home Economics teachers and supervisors. A rather extensive Bibliography of titles relating to the topic is also included.

Arthur Gravatt's paper, "A Frame of Reference for Home Economists Working With the Disadvantaged," presents several sociological applications to the study of families and groups. When speaking of the conflict in the field of home economics education, the author suggests that 'skills' have been deemphasized in professional training at the collegiate level in favor of the 'conceptual' approach.

Application Needed

He warns that "both orientations are needed. Indeed, each end of the continuum has much to offer the other. Colleges and universities can best function at the conceptual level in theory development, testing of theory through experiment and research, product de-

velopment, and evaluation of programs. But theory and research without application are of little help to the poor."

When discussing the people served by home economics, the author questions the degree of involvement of home economists in matters relating to the disadvantaged. "Whom are we serving? Who is the clientele of home economics programs? Formerly the focus has been working with middle-class groups in the community or captive groups in schools and colleges. As one reads the rich literature on helping disadvantaged families, it becomes evident that home economists are conspicuous by their absence."

A Perspective Analysis

The presentation by Barbara Kemp, author of the monograph, "The Youth We Haven't Served," is especially enlightening. A perspective analysis of the traditional middle class values associated with work, cleanliness, education and family behavior, it relates how many socio-economically disadvantaged people wish also to adopt these values if only shown the way.

The author makes special recommendations for Home Economics teachers with respect to such topics as family planning and sex education, community organization, consumer education and child care.

When discussing approaches to classroom instruction for disadvantaged youth, Miss Kemp urges teachers to:

"Use material they can handle . . . praise and compliment small progress. Give them individual attention . . . let them teach you. Listen to them. Let them tell you what some of their needs are before you suggest the kinds of programs and materials you think good for them."

3:4 "THE VALIDATION OF EDUCATIONAL SYSTEMS PACKAGES FOR OCCUPATIONAL TRAINING OF DEPRESSED AREA STUDENTS" BY PURL

It goes without saying that improved curriculum materials, together with refined teaching methods, are needed to bring about more effective instruction for disadvantaged youth. Purl's validation study of educational systems packages sheds light on both items.

Hypothesis for Instructional Material

"The hypothesis under test in this study contends that instructional material, revised in iteratively (repeated) cycled individual tutorial sessions with students from an urban deprived population, would yield more learning than would material revised in a typical curriculum workshop situation involving modifications based upon the teachers' subjective experience, but not upon direct interaction with the individual student. By placing the student into the feedback loop of material evaluation and modification in the tutorials, it was assumed that more powerful instructional resources could be developed through face to face interaction between the teacher, author, and the student."

Data Bank of Student Response

Another aim reported was to investigate the feasibility of establishing a data bank of student responses to the instructional material. The study was conducted in Simon Gratz High School, Philadelphia.

The methodology employed consisted of comparisons of learning test scores between groups of students using tutorially revised material, and a group studying instructional materials prepared exclusively by teachers. All subjects were tenth graders currently enrolled in a general mathematics course.

Fifty subjects each were chosen at random for the laboratory and control groups. Pairs of students were matched in accordance with I.Q., arithmetic, and reading test scores. Attendance records became a further criteria selection. No student who had missed more than 30 days in his previous year at school was considered for either group.

Tutorial Sessions and Analysis

Tutorial sessions were conducted to revise the basic text materials. Individual sessions were initiated using a unit on "The Measures of Central Tendency" from the tenth grade *General Mathematics Book One*, by Brown, Simon and Snader. Experimental groups and the central group were given the same criterion tests in order to measure learning performance. Instruction was in the Simon Gratz tutorial center and usually lasted a full forty-five minute period per child.

Analysis of data obtained through tests and a frequency diagram of criterion test scores supported the hypothesis that tutorial revision of instructional material will produce a more effective teaching tool than will workshop revision. There was no basis for concluding any correlation between teaching effectiveness of materials and level of I. Q.

This study supports the theory of learning that students are perceptive, and given the opportunity, they can make positive contributions toward improving teaching method and curriculum content. There is a lesson here for all teachers. But, particularly, those of *youth with special needs.* Before determining what should be taught and what teaching methods to use, it is important to find out what students feel they need to learn and how the learning can best be accomplished.

Topic Four: VOCATIONAL GUIDANCE • Of practical significance • Available to all • Follow-up studies

3:7 "A DEVELOPMENTAL PROGRAM FOR VOCATIONAL COUNSELORS DIRECTED TOWARDS SERVING DISADVANTAGED YOUTH MORE EFFECTIVELY" BY SWEENEY

This report is the product of a one year cooperative effort of South Carolina educators to determine more effective ways in which to serve disadvantaged youth.

A two week institute for twenty-nine counselors from "employment, trade, technical, and school settings" constituted a major phase of the project. Institute sessions were made up of presentations by visiting speakers, and workshop sessions for discussion and program development. Follow-up meetings of conferees were held on three subsequent dates.

According to the program report, problems associated with counseling disadvantaged youth in South Carolina are compounded by the fact that the State has no compulsory attendance law.

"As a result, many youth are not just drop-outs: they have never attended school" it is pointed out in the report.

Recommendations

Perhaps the most illuminating aspect of the developmental program for vocational counselors was the set of recommendations made by institute participants with relation to (A) joint action by agencies working with disadvantaged youth, and (B) for counselor education and in-service training.

Many of these recommendations, although prepared by South Carolina vocational counselors for conditions in that state, should be applicable to many other regions and situations.

Among the first group of twelve recommendations was one that "a state agency assume responsibility for compiling a directory listing and describing the functions of various agencies and facilities available in each specific area of the state presently serving disadvantaged youth," and another "that studies be made to determine how present and proposed programs for disadvantaged families could be longitudinal and developmental in nature, i.e., to provide educational, cultural, and other experiences for the entire age range of disadvantaged from pre-school children through the adult level."

Among the ten recommendations for counselor education and in-service training was one that "counselor educators provide field and class experiences for the counselor candidates which would help them to be more knowledgeable about skill levels required of trade and technical workers, working conditions in major state industries, vocational training and entry occupations available in the state, and occupational trends and projections for both the state and the nation. . . ."

3:8 "Analysis of Dropout Statistics of the Colorado Dropout Research and Action Project" by Burrows

The Colorado study of school dropouts was predicated on the concept that any dropout represents a defeat, not only to the individual, but also to the educational system that failed to keep him in school.

Five Basic Assumptions

The Colorado State Department of Education initiated a long term, cooperative, action research project directed toward the dropout problem. The development of the project has been based on five basic assumptions:

1. The problem is broad in scope involving complex educational, psychological and social situations. Therefore, there is no one single simple solution.
2. A comprehensive approach to the problem that involves the community as well as the school has most promise of success.
3. Specific factors involved in dropout vary from community to community. Therefore local study and action directed to real and specific causes of dropout are most appropriate.
4. Problems leading to dropout are often developmental in nature. Action programs should be concerned with elementary as well as secondary school pupils.
5. The nature of the problem may require new concepts, philosophy and activities on the part of the school and community.

Project Goals

Goals of the project were to decrease the rate of pupil dropout; to evaluate the effectiveness of different approaches used by school districts; and to develop a model for local study and action through the identification of common elements of the most successful action research programs.

Local school districts involved in the study mainly had to do with the assignment of a local coordinator of the program, the conduct of an action plan, and the keeping of record and evaluation systems. The State Department of Education was to provide for coordination between school districts; establish uniform dropout definitions and methods of calculation; provide a basis for project evaluation; assist local districts; enlist cooperation of State Governmental agencies; and attempt to obtain financial aid for the project.

Statistical Range

The statistical treatment of Colorado school dropouts proceeds from the tabulation of annual attendance and dropout report forms to dropout statistics in each school district to the dropout data form used in the study.

The dropout data form was designed for use with an IBM card. The qualitative data requested on this form is organized according to the following outline:

Identifying data
Academic ability
Achievement

Emotional maturity
Social adjustment
Socio-economic conditions
Parental attitude
Physical disability
Summary
Future item additions
Local data

Dropout Data

Information was gained through summarizing dropout data by size and location of district. The development of factor analysis for 2,389 dropouts, and a stepwise multiple discrimination analysis, led to a report of the characteristics of dropouts and graduates from Colorado project dropout schools, and to the development of revised forms to be used in further studies.

In this concluding section of the study is the information that "the data reported here are being analyzed further through the use of a stepwise multiple discriminant analysis in an effort to develop an automated system for use in identifying educationally deprived students. A report on the findings of these analyses will be available later this fall."

The Colorado analysis of dropout statistics should be of special interest to researchers who may be involved in the design of similar projects. Although this document does not contain a discoursive treatment of findings and recommendations, examination of the statistical data will reveal a pattern of educational and socio-economic characteristics of school dropouts in Colorado which would relate to other studies in other areas.

3:9 "A TEACHER INSTITUTE TO PREPARE TEACHERS AND MATERIALS FOR THE EDUCATION OF RURAL, LOW ACHIVEING, DISADVANTAGED JUNIOR HIGH SCHOOL STUDENTS FOR ENTRY INTO VOCATIONAL—TECHNICAL PROGRAMS" BY HODGSON.

The Delaware institute to prepare vocational teachers to assume responsibilities as instructors of pre-vocational core programs for rural underachieving junior high school students was designed to combat the educational problem of disadvantaged rural children who either drop out of school before the tenth grade, or who lack the essential basic education for entry into vocational school.

The two procedures employed to achieve the program's objectives were the establishment of a demonstration class in which a model program would be developed with a group of rural disadvantaged junior high school students; and the preparation of a program of instruction for the teacher-participants to prepare them for a similar role in a Delaware school district.

Pupils' Progress Measured

Twenty disadvantaged underachieving children from Newark, Del. were selected to participate in a demonstration class. This class served as an experimental unit in which the pre-vocational occupational core curriculum was used. Measurements of pupil progress for the six week session included the Gates Reading Survey, Differential Aptitude Tests, Taped Interviews, Student Questionnaire, and Pre- and Post-Analyses of Written and Dictated Stories.

Seventeen vocational teachers were selected as teacher-participants in the institute. The program developed for the teachers included three basic goals:

- Orientation to the needs, characteristics and problems of the disadvantaged;
- Instruction in corrective and remedial procedures; and
- Acquainting them with skilled and semi-skilled occupations to be used in motivating the disadvantaged.

The program of instruction for teacher-participants included formal classroom work, guest lecturers, collateral reading, field trips to poverty areas and agencies, public seminars, writing assignments, and supervised practice teaching.

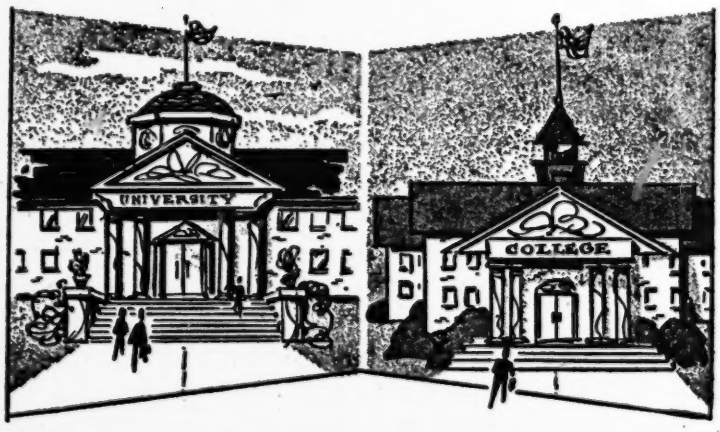
Conclusions Favorable

The conclusions for this institute were generally favorable. Included were statements that vocational teachers can be oriented to the needs, characteristics, and problems of disadvantaged junior high students; a pre-vocational core curriculum can be successfully employed to motivate the disadvantaged; teachers are interested in further in-service instruction; academic subject matter can be correlated with vocational activities; and, the six week duration of the institute was too short to accomplish all the objectives outlined in the proposal.

In-Service Program for Teachers Recommended

Among the recommendations for the study was one for the establishment of an in-service program for vocational and pre-vocation teachers with strong emphasis on remedial reading and language arts techniques. Other recommendations referred to such matters as pre-vocational core curriculum development, diagnostic teacher training in testing procedures, separation of classes by sex, and the extension of time needed for laying a foundation for such a program.

In the section of this report recommending the correlation of academic subject matter with vocational activities, may be found some of the procedures which have for years been standard practice in our better vocational high schools. This material, together with information and recommendations relating to diagnosis and instruction of a corrective or remedial nature, particularly in reading, should be of general interest.



3:10 "THE DEVELOPMENT OF A MASTER TEACHER TRAINING CURRICULUM FOR TEACHERS OF OCCUPATIONAL LEVEL TRAINING PROGRAMS" BY O'BRIAN.

Specially Trained Teachers . . .

"A critical problem facing education today, and one in which vocational education can play a leading and prominent role in solving, deals with providing a realistic educational program for Youth With Special Needs. . . . Remedial programs need to be replaced with preventative programs. This responsibility must be and is being accepted by our public schools," stated Dr. John O'Brian of Rutgers University as he introduced the purpose of his investigation: "To Develop A Curriculum With the Corresponding Courses of Study for a Master's Degree to Prepare Teachers for the Instruction of Youth With Special Needs."

In the process of developing the curriculum, five specific factors relating to youth with special needs were given consideration. These are:

1. Characteristics;
2. Educational, psychological, and sociological needs;
3. Skills, knowledges, and understanding needed by teachers and other supporting personnel to work effectively with the youth;
4. Methods of teaching that will be effective; and
5. Types of internship experiences that will be effective for teachers of the Youth With Special Needs.

Master's Degree Program

The development of a Master's degree curriculum and concomitant courses of study was accomplished by a committee of seven members. The thirty-three semester hour graduate program for teachers of students with special needs is comprised of four major instructional blocks:

1. Summer Session—Orientation Workshop (3 credits)
2. Fall Semester:
   - The social psychology of the disadvantaged (4 credits)
   - Seminar in urban society (4 credits)
   - Field experience (4 credits)
3. Spring Semester:
   - Seminar in Learning, Development, and Measurement (4 credits)
   - Educational Processes for Teaching the Disadvantaged (4 credits)
   - Educational Practicum for Teaching Disadvantaged Youth (4 credits)
4. 2nd Summer Session:
   - Professional Issues Seminar (3 credits)
   - Integration Option
   - Masters Project (3 credits) or
   - Evaluation Paper (no credit)

Wealth of Material Available

Course outlines developed by the committee are stocked with discussion topics, suggested experiences, and other valuable information. They are replete with bibliographies of books, plays, films, records and TV documentaries, all of which should be of interest to faculties of vocational teacher training institutes.

A valuable addendum to the course development work is a series of eleven papers, all relating to the preparation of teachers of disadvantaged youth.

3:11 "Production of a Motion Picture for the In-Service Training of Teachers in Problems of Human Relations in Teaching the Socio-Economically Disadvantaged—An Evaluation of the Motion Picture" by Breitrose and Voelker

Effective instruction of disadvantaged young people requires a high degree of teacher insight. But how is a teacher to gain such insight? And, for those engaged in the preparation of teachers, can there be any particular elements in the professional curriculum that will insure the program's graduates of having indeed developed the dimensions of appreciation and understanding so necessary for successfully teaching youth with special needs? The inherent difficulty lies in the fact that insight is an intangible concept which eludes specific definition or accurate measurement.

The use of the motion picture for the inservice training of teachers in problems associated with teaching the socio-economically disadvantaged, may prove to be a significant new approach in preparation. Since the film invites involvement through identification with the characters, it highlights problems in a dramatic way and, in summoning responses, may lead to personal insight, self-enlightenment and appreciation.

A Special Film Is Made

The motion picture "For All My Students," which deals with problems of teaching disadvantaged students, was prepared under the direction of Miss Bonnie Sherr, a Master of Arts student specializing in film in the Department of Communication, Stanford University.

In the proposal for vocational education funds to produce the film it was stated:

"It would seem that problems of human relations in general, and those relating to the disadvantaged, are at the root of much teacher failure . . . that student-teacher relationships, teacher stereotypes and teacher prejudices can be seen as operating against the important vocational education goals of teaching basic knowledge, occupational skills, and personal characteristics necessary for economic independence and human dignity."

Miss Sherr developed an outline and shooting script, which was then circulated to advisors for recommended revisions. The actual photography and recording of the film was made at Ravenswood High School, East Palo Alto, Calif. by a crew of student film makers from Stanford.

The product is a 33-minute, 16mm sound production. "For All My Students" investigates the particular difficulties and rewards of teaching disadvantaged high school students and demonstrates the possibilities for effective and satisfying teaching by contrasting poor and ineffective approaches.

The main sequences of the film include a white social studies teacher, Shirley Smith, who is having considerable difficulty disciplining a class; Harvey Cole, a Negro science teacher, whose class represents a less formal but more effective approach; and Carolyn Silvera, a white English teacher who provides a third dimension of teacher attitudes and classroom techniques.

The technical style of the film is essentially that of the

re-enacted documentary. Ravenswood High School teachers and students role-play situations from a script.

The film was shown to groups of teacher interns, 87 of whom were enrolled at the University of California at Berkeley and 132 at Stanford. The average age of Berkeley students was 25 and for Stanford 21.

The over-all consensus of both audiences was a strong vote of approval. Out of the total number of teacher interns viewing the film, 188, or over 85 per cent, rated the film very good or excellent. Over 90 per cent of those who viewed the film were satisfied that it had accomplished its stated purpose.

The motion picture, "For All My Students," is available for rental or sale from the distributor: Extension Media Center, University of California Extension, Berkeley, Calif. 94720.

Topic Six: EXPERIMENTAL AND PILOT PROGRAMS • Development of practices to better serve disadvantaged youth.

• 3:13 "INCREASING TASK ORIENTED BEHAVIOR: AN EXPERIMENTAL EVALUATION OF TRAINING TEACHERS IN REINFORCEMENT TECHNIQUES" BY KRUMBOLTZ AND GOODWIN

In stating the problem for this experimental study is the commentary that: "The child who is unable to sustain attention to learning tasks is at a considerable disadvantage in a classroom. The intermittent nature of his task behavior must produce a result not unlike a television demonstration which is constantly turned off and on by a defective switch. . . . The inattentive child may fall behind his classmates in understanding the subjects presented. The pupil's discouragement and growing confusion with assignments are the immediate outcome of non-attention."

Hypotheses

The study was based on the two-phase hypotheses that first, teachers trained to use certain reinforcement methods would show a greater application of these techniques than teachers not given the special training, and second, pupils whose teachers were trained in recommended techniques would show (1) more task-oriented behaviors, (2) more independent task-oriented behaviors, and (3) more favorable behavior ratings by their teachers.

Fourteen second grade teachers identified children in their classes least able to sustain attention to tasks. The teachers were randomly assigned to control and experimental groups. Two pupils in each class were designated as subjects, but only one was identified as such by his teacher. Both experimental and control group teachers were led to believe that they played an important part in the study.

The assumption was made that the inattentive behavior of pupils was maintained, in part, by the reinforcement unintentionally provided by frequent teacher reminders for the child to get back to work. In addition, the teacher might not be giving sufficient recognition at times when the pupil was attending his work. The experimental procedure simply reversed these contingencies, urging the teacher to withhold attention from pupils behaving inattentively and rewarding attentive behavior as soon as it occurred.

"Criterion data were collected by observations of the behavior of teacher-pupil pairs and by ratings from teachers of their pupils' behavior. Paid observers were trained in the observation technique but were unaware of the purpose of the study and the identity of control and experimental subjects. An observation technique was designed which permitted simultaneous ratings to be made of both pupil and teacher behavior. Observations were made at the beginning, mid-way, and at the end of the six-week period. Teacher ratings of pupil behavior were made before and after the study on a 39-item rating scale.

Results Inconclusive

Results were analyzed to determine the effectiveness of the training given experimental group teachers to use the reinforcement procedures. By the end of the study, experimental group teachers tended to make more use of reinforcement techniques than control group teachers but the differences were not clearly significant.

The use of these methods by the experimental group was not consistent over the period of the study. While experimental group teachers did not use reinforcement methods, their application was less than desired and was confined to pupils identified as subjects.

The second set of hypotheses concerned the responses of pupils in the control and experimental classrooms. The experimental group subjects did not show a greater frequency of task-oriented behavior. While the task-oriented behavior of all groups improved during the study, the reinforcement procedures were not more effective than those of the control group.

Experimental group subjects showed a greater frequency of independent task-oriented behaviors than control group subjects, but differences between the groups were not sufficiently large to confirm the hypotheses at the .05 level.

Experimental group subjects received no more favorable behavior ratings from their teachers than control group subjects. Identified and non-identified subjects showed about the same degree of improvement on all criteria measures and none of the interaction effects were significant.

The results of this study suggest that the training of teachers was crucial to the outcome of the study. In spite of their approval of reinforcement procedures, experimental group teachers found themselves unable to apply them consistently. Thus, the main effect of the training may have been for teachers to give recognition for inattentive behavior on a partial instead of a continuous reinforcement schedule. Such a change could be predicted to result in an increased frequency and intensity of inattentive or disruptive behaviors and could cancel any other improvements.

The results of this study also raise questions about the efficacy of cognitive methods in changing teachers' behavior, particularly when the expected

change is incompatible with previous behaviors. "Future research designed to test the effectiveness of reinforcement techniques should first insure a thorough application of the techniques before pupil behavior is assessed."

Krumboltz's experimental investigation should be valuable to those researchers in vocational education who wish to conduct further studies of student motivation, attention, and reinforcement techniques by teachers.

It also should be of interest for its well organized experimental design, procedure, and review of literature relating to attention to learning and teacher reinforcement methods.

This study of relations between teachers and second grade pupils appears to be rather far afield from vocational education to be conducted under the auspices of 4(c) Vocational Education Act of 1963 funds. Although it could be argued that data derived would ultimately benefit vocational teachers, could this not lead to a rationale that all learning theory studies may also be supported with vocational funds?

3:14 "A Study in Communication Between High School Teachers of Vocational Agriculture and Socio-Economically Disadvantaged Youth by the Use of the Semantic Differential," by McMillion

One of the basic problems associated with teaching the disadvantaged is the usual disparity in cultural background between teacher and pupil and the concomitant failure in adequate two-way communication between them.

The lack of interest or motivation, so commonly associated with "slow learners," "underachievers," "truants," "potential dropouts," "trouble makers," and the like, can at least in part, be traced to teachers' inability to listen and learn, and in their failure to develop a climate of mutual understanding and communication.

Word Connotations Important

The purpose of McMillion's study was (1) to determine whether or not socio-economically disadvantaged students of vocational agriculture place different connotative meaning on selected words and phrases; (2) whether or not the connotative meanings the agriculture teachers of these pupils placed on words and phrases were more like those of the higher socio-economic classification of pupils than the disadvantaged classification; and (3) to determine the extent to which teachers recognize any difference in connotative meaning for selected words and phrases which may exist among the various classifications of pupils.

Pupils studying vocational agriculture in 21 Illinois high schools were classified into three socio-economic groups by use of the Sims SCI Occupational Rating Scale.

A stratified sample of 240 pupils composed of 20 pupils from each of the 12 stratifications and 21 teachers of Agriculture completed a semantic differential instrument. Respondents indicated the connotative meaning of words and phrases by judging them against Likert-type scales. The major statistical procedure employed was a multivariate analysis of variance. The hypotheses were tested at the .05 level of significance.

Teachers Underestimate Students' Word Values

One of the significant findings in this study was the connotative meaning tested pupils placed on the words "leadership" and "cooperation." The word "leadership" was valued more highly by the socio-economically disadvantaged group of pupils than by the upper socio-economic group; the word "cooperation" was valued more highly by the low and middle than the highest socio-economic group. It is also of interest that teachers consistently underestimated the value which all vocational agriculture pupils placed upon the words and phrases being studied.

The investigator recommended that teachers of agriculture should encourage the opportunities for leadership for socio-economically disadvantaged vocational agriculture pupils.

Although McMillion's study of communication is restricted to a local region, and the students and teachers involved were all in the field of vocational agriculture, its significance to all teaching of vocational education—all teaching for that matter—should not be taken lightly.

As recommended in the investigation, "the study of the connotative meaning of words by the use of semantic differential technique is recommended for use in the further studies. It is superior to an attitude scale in that it measures more than the evaluative dimension of meaning."

Persons interested in further studies relating to communications between teachers and pupils in vocational settings should search the literature of the behavioral sciences as considerable theoretical background is available in this area.

• 3:12 "Opportunities and Requirements for Initial Employment of School Leavers with Emphasis on Office and Retail Jobs" by Cook and Lanham

The two and one half year study of office and retail jobs in Detroit was based on the assumption that "Shifting job requirements brought on by automation and other technological developments have caused an imbalance between the needs of business and the current high school curriculums."

Objectives

The major sources of data about entry jobs for school dropouts and graduates were the employers and school leavers themselves. The objectives of the study were four-fold:

1. To determine the current labor market for high school leavers (aged sixteen to twenty-one) as reported by employers;
2. To determine what actually happened to school leavers as they sought to enter the labor market as reported by themselves;
3. To determine relationships, if any, between data collected from both groups of respondents; and
4. To develop a prototype for examining entry job opportunities and requirements that other metropolitan school districts could follow.

Procedure

The procedural steps in conducting the study included (1) the determination of sampling procedures for employers and students, (2) development of survey instruments for each and (3) sorting and collection of resultant data for various analyses.

The employers' "disproportional stratified serial sample" of 683 companies was drawn from a list of 35,091 businesses in the City of Detroit. The total list was stratified by number of employees and by *Standard Industrial Classification* groupings.

The universe of school leavers was made up of all June, 1963 graduates (7,422), and all who should have graduated in June, 1963 but dropped out of school in their senior year (330). The list of persons was stratified by graduate or dropout, school attended, and sex of the respondent.

Interview instruments were field tested and revised before interviewing began. Professional interviewers were employed. Business respondents were interviewed three times at six month intervals. Each school leaver was interviewed once. Trained coders transferred information into numerical form so that the analyses could be handled on Wayne State University's computers.

Findings

Among the 18 findings of the study was information that four percent of all Detroit companies account for 55 percent of all office and retail jobs secured by 16-21 year olds; "Co-op" was the most positive factor in determining whether a school leaver secured a job; being a female Negro was the most negative factor. Other findings had to do with Intelligence—it plays an important role in entry-job success; size of the company and varying employment practices; and variety of skills required for entry employment.

"Forty-four percent of all office and retail jobs demanded the skill of typewriting. Of all jobs demanding one or more skills, 85 percent demanded typewriting. Typewriting ranked first as the most frequently required skill in 13 office and retail occupations."

Conclusions

Among the eighteen conclusions derived from the Detroit study are the following which seem to have particular bearing on youth with special needs:

• The fact that in 1965, a period of unprecedented economic activity, 62 percent of all businesses in Detroit stating that they did not have jobs that could be filled by an inexperienced high school leaver, raises serious questions about the future opportunities for the 16-21 year old group entering the world of work.

• More than one third of all entry jobs filled in Detroit during the year ending June, 1965, did not by definition require formal high school preparation.

• A hard core of unemployed school leavers appears to be developing in the class of 1963 school leavers.

• More 16-21 year olds lost their jobs for incompetence and inability to do the job than for any other reason. Inability to get along with people accounted for one-third of the reasons for dismissal.

• Females generally have a more difficult time obtaining an entry job than do males. Female Negroes have more difficulty obtaining jobs than do any other group. It has been generally assumed that male Negroes have more difficulty in obtaining entry jobs than do white males. The findings in the study do not support this belief for the school leavers from the class of 1963.

• Clerical occupations appeal to a higher intelligence group than is commonly believed by most school personnel—especially counselors. Low intelligence may be a factor that excludes school leavers with business training from entering the clerical occupations.

• Low-intelligence students should not be encouraged to enter an office education curriculum, since a small proportion of them will secure office jobs. High-intelligence students should not be counseled out of an office curriculum, since a high proportion of them secure office jobs.

• Employers do not consider the school as an important source for seeking office and retail employees; school leavers do not consider the schools as an important resource for seeking employment.

• The application blank and interview, formal or informal, are two of the most frequently used forms of screening employees.

Serious Social Problem

In the section of the Detroit study pertaining to needed additional research is the statement, "The findings and conclusions cited are at the heart of a social problem much broader and deeper than can be solved by school people alone . . ."

This study touches on a vital problem of urban life—that many young people who graduate or drop out of high school have increasing trouble finding entry into employment. As mentioned in the study report this problem cannot be solved by school people alone.

No doubt, curriculum improvements will help reduce the numbers of hard core urban unemployed. In addition, concerted efforts are needed, mainly through advisory committee work, to encourage the interests of business, industry and organized labor to take on a greater measure of this responsibility.

Note: The following three topics, 1:128, 1:129, and 1:130, (additional information), relate to the September issue's section on "High School Age Youth." Under discussion are • Small high schools • Specialized instructors, and • Experimental programs

---

• 1:128 "SUMMER SCHOOL ADMINISTRATIVE WORKSHOP: NEW HORIZONS IN DEVELOPING VOCATIONAL EDUCATION PROGRAMS IN SMALL HIGH SCHOOLS IN SMALL DISTRICTS" BY GREEN, ERTEL AND BIGGAM

This one week conference of Idaho school administrators on the development of vocational education programs in small high schools was mainly comprised of formal presentations followed by general and small group discussions. Visiting speakers included Dr. William J. Micheels, president of Stout State University; Dr. Merle Strong, director, Research and Development Section, U.S. Office of Education; and James R. Beima, vocational supervisor, Clarkston, Wash. Thirty-two school administrators participated in the workshop.

Speeches

The project report contains drafts of Dr. Micheels' keynote address, "The Challenge of Change"; a second speech by Dr. Micheels entitled "Education for All the Children"; Dr. Strong's address, "Opportunities for Developing Action Research in Vocational Education at the District Level"; and the speeches of Beima, Cooney and Giles, dealing with "Youth with Special Needs," "Curriculum Development," and "Effective Counseling," respectively. Also published are the reports of four workshop committees.

Topics

In the week preceding the conference, four conferees who had been designated to lead small group work sessions were brought to the University of Idaho to pre-plan with conference directors the sessions for the following week. It was the decision of this group to center the discussion around the following topics:

1. The development of the curriculum patterns and possible administrative patterns for operation of prevocational education at the local level;
2. Isolating and identifying researchable problems relating to vocational education at the local level;
3. Creating a pattern for evaluating emerging vocational programs at the local level; and
4. Studying and determining the training needs of youth in their communities.

Education for All the Children

Dr. Micheels' second address, "Education for All the Children," identifies ten needs relating to vocational education. These include the development of new concepts, processes, and techniques; a massive coordinated attack involving industry, labor, the community, home, educational institutions, and government; occupational training and re-training beginning at an early date and continuing as long as needed; a new focus on the needs of people rather than selected occupations; a careful new look at vocational guidance; a new look at the place of women in our work corps; new types of teacher preparation programs; and a national program of research.

Questions Value of Work Experience

When speaking about new types of programs that will provide competent teachers for emerging technological programs, Dr. Micheels made the following statement:

"This whole idea that you had to get six or seven years of work experience in industry before you can teach in the vocational program is going to have to go by the board; in many places it has already because there are not enough teachers or workers available for us. We are going to have to find different ways of providing the college and university training that is necessary and, in addition, give teachers some kind of industrial on the job experience."

"Baby With the Bath Water"

This form of reasoning seems to brush aside the significant contributions to vocational teaching that come from solid and substantial payroll employment experience. There can be no question that all vocational teachers need a sound program of liberal technical and professional education. But to make the assumption that only college and limited quasi employment experience can supplant the real and significant benefits that come from the disciplines of productive work, whether in office, data processing center, shop, or farm, is another matter. Could this approach if generally accepted, "throw the baby out with the bath water?" More attention will be given to the preparation of teachers for vocational education in the January edition of "Research Visibility."

• 1:129 "EVALUATION OF THE EFFECTIVENESS OF USING SPECIALIZED INSTRUCTORS IN PROVIDING OCCUPATIONAL TRAINING FOR INDUSTRIAL JOBS FOR HIGH SCHOOL VOCATIONAL AGRICULTURE STUDENTS" BY TEETER

The University of Arkansas experiment, in the use of specialized instructors with industrial skills for high school vocational agriculture classes, was in part motivated by the fact that a large proportion of vocational agriculture graduates have been found to

enter occupations other than farming.

Roy Roberts' study of former vocational agriculture students in Arkansas showed that "Seventy-two percent of former students who were available for employment upon leaving school entered occupations other than farming. Most of them were employed as semi-skilled workers in manufacturing industries."

Purpose of the Investigation

The purpose of the investigation was to demonstrate the effectiveness of using special instructors to supplement the day school class in agricultural mechanics for nine high school seniors enrolled at the Magnet Cove, Arkansas, High School. The study was designed to answer the following questions:

(1) Whether or not offering training of this nature would help students to make firm choices of a vocation, (2) whether or not such training would increase the stability of their employment, (3) whether or not the length of the apprenticeship period would be reduced as a result of the training, and (4) whether or not the training would reduce school dropouts.

Three special instructors, who were employed in local industries, were secured to teach in the Magnet Cove High School for one hour each day for a period of six weeks during the spring semester of 1965. The three units—Blueprint Interpretation, Electricity and Welding—were taught consecutively as part of the agricultural mechanics course.

Conclusions

Concluding statements for this demonstration project gave affirmative answers to two of the questions included in the objective of the project. "The special instructors course assisted all students enrolled to make a firm choice of an occupation and prevented one or two potential dropouts from leaving school." It was recommended that follow-up studies would be made to determine whether the courses will add stability to employment and reduce the length of apprenticeship training.

A further recommendation was that special instructors should be employed to enrich the agricultural mechanics course in most of the vocational agricultural departments of the state.

The concept of using working practitioners to supplement the regular instruction provided by a professional staff seems worthy of consideration in a number of rapidly changing occupations. A team teaching approach, utilizing the organizational ability of a professional staff member and, reinforced with specific up to date skill and knowledge of a rotating cadre of experts from the field, could add a new dimension to many vocational offerings. Further demonstration programs involving larger numbers of students are needed to further validate the relative merits of using specialized instructors on a part-time basis.

An intriguing question pertaining to vocational education in rural sections of the country is to what extent a local board of education is responsible for providing vocational instruction in skills and occupations that do not exist within the confines of the district. One point of view frequently expressed is that the Board has no business training local young people for jobs in other areas, as such training would not serve the local community interests and the recipients of training would have to either re-locate or travel long distances to urban centers to find employment.

A converse position, and one which is more in keeping with the principles associated with federal support for vocational education may be found in the statement, "They will have to leave home to find work anyway—why not give them the equipment needed for employment success when they get to the city?

"This argument may be further strengthened by considering that college preparatory programs are not restricted to college towns; they are generally available to everyone. And many young people who leave rural communities for college go on to work in other settings.

"In relation to the question, the New York State Position Paper on Occupational Education has endorsed the construction of both area centers of technology for high school students, and two year community colleges in every region of the state to insure that 'no students are handicapped due to geographical location.'"

• 1:130 "Pilot Programs in High Schools to Prepare Students for a Wide Spectrum of Computing, Recording and Bookkeeping Occupations" by Stewart

During the 1965-1966 school year, three Virginia secondary schools (one urban, one suburban, one rural) offered three-course pilot programs in record keeping, bookkeeping and accounting. Three other high schools which offered the traditional one-course program in bookkeeping, served as control schools. Records of aptitude and achievement were kept for the students in all six schools.

Specific Problems

The specific problems stated for this project were as follows:

1. To compare end of year achievement of record keeping students in two pilot schools vs. bookkeeping students in two control schools;
2. To compare end-of-year achievement of bookkeeping students in three pilot schools vs. bookkeeping students in three control schools;
3. To report on the success of the accounting courses offered in three pilot schools;
4. To compare drop-out rate, absence rate and student opinion toward the course between pilot and control students; and
5. To report the opinions of teachers and principals in the pilot schools toward the pilot programs.

New Directions

Citing occupational analyses of bookkeeping and accounting work found in related studies, and considering newly emerging occupations in computing, record-keeping, and bookkeeping, the author states, "The traditional one-year high school bookkeeping course does not seem to provide a suitable training vehicle for the diverse occupations in computing, recording and bookkeeping open to youth of a wide range of reading, arithmetic and learning abilities."

Open-Ended Curriculum

The basic innovation in the proposal is the replacement of the traditional bookkeeping course by a sequence of three courses, record-keeping, bookkeeping and accounting. Students are to enter the sequence at the point most suitable for them to progress as far as possible. The completion of any part of the sequence would be considered acceptable preparation for specific DOT jobs.

Teachers and Students

Teachers in pilot schools were assigned to classes on the basis of their interest in participating in the pilot program. Record-keeping students were selected from those who had asked for bookkeeping, and from students who had previously asked for record-keeping. Bookkeeping students were selected from highly successful record-keeping students and others who asked to be placed in bookkeeping. Students selected for accounting and other high ability students were chosen from highly successful Bookkeeping I students who indicated their desire to take Bookkeeping II.

Advisory Councils and Field Visitations

Teachers in pilot schools worked with local advisory councils composed of local accountants and other administrative managers for the purpose of adjusting the courses to occupational needs and trends, and setting course standards. Also, teachers in pilot schools made a minimum of five office visits to study computing, recording and bookkeeping occupations with the purpose of adjusting courses occupationally and to establish standards of achievement.

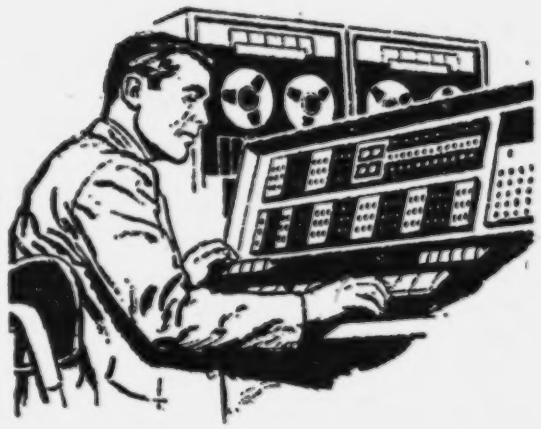
Testing of Achievement

At the end of the school year, all students in pilot and control groups were given achievement tests; record keeping and accounting students received specially constructed examinations; and all bookkeeping students took the six-part Bookkeeping Test of the National Business Entrance Test series. Groups of students were equated in age, grade, intelligence; and aptitude and statistical analyses of variance were programmed through an IBM7040 computer.

Summary of Findings

Included in the summary of findings of this report is information that pilot record-keeping students made significantly higher scores on the record-keeping achievement test than did control bookkeeping students. Neither group did well on the National Business Entrance Bookkeeping Test, and the results obtained in accounting appeared to be inconclusive.

It was recommended that additional three-course pilot programs be instituted in Virginia and in other states; that schools offering traditional bookkeeping programs study student achievement, drop-out rates and student opinions. It was further recommended that subsequent programs in record keeping, bookkeeping and accounting be carefully evaluated for their contribution to vocational preparation in existing and newly emerging computing, recording and bookkeeping office occupations; and that particular attention should be given to student aptitude and motivation where accounting is offered in high school.



Comment

It is encouraging to note the attention and support given in this study to *occupational analysis* and *work with advisory committees.* As both of these activities are basic for success in all true vocational education programs, they belong in any design for curriculum improvement.

"PLAIN TALK"

Something in the neighborhood of fifty studies relating to the vocational education of youth with special needs have been submitted to the U.S. Office of Education. The initiators of these investigations have broken new ground in a sector of research generally neglected in the past. Hopefully, more studies will be generated by their leadership.

The number of studies dealing with the disadvantaged may appear substantial at first glance. Actually, when they are compared with the multiplicity of complex and interrelated problems associated with socio-economically handicapped young people, it becomes evident that research efforts thus far completed have only scratched the surface.

Realistic Research Needed

There is an urgent need for all sorts of additional experimental demonstration and innovative work in vocational education, particularly "where the action is"—at the point of contact and application between teachers and students and counselors and students.

Research studies need to be on closer terms with the "subjects" of experimentation, the people involved. In this respect, there appears to be a tendency among students of the disadvantaged to discuss their problems from afar—especially from air-conditioned rooms, and to assign prescriptions for what is good for disadvantaged youth without making adequate assessments of the young peoples' wishes and desires.

Many Questions Unanswered

There appear to be any number of research questions that still beg to be answered. In the field of occupational orientation, there is a need to develop a satisfactory operational concept of the term and how it may be applied to

youth with special needs. Vocational educators should lead the way in developing demonstration and pilot programs of occupational orientation as a regular part of a school curriculum.

There should be experimentation with the various components of a comprehensive orientation program to determine to what extent and in what form each should be employed. Such elements of a total program as group guidance, occupational analysis, field trips, career days, diagnostic testing, student self analysis, shop exploration, and cooperative work experience, should be considered here.

Occupational Orientation

The concept of using group guidance as a vehicle for occupational orientation is often discussed, occasionally practiced and seldom tested. Although there appear to be any number of approaches that would lend themselves to research and demonstration, the number of studies relating to this topic have been limited.

The knowledge and experience of vocational educators is especially valuable as plans are made for further investigation. In this respect, it is time for vocational people to stop talking about what is wrong with guidance and begin formulating their own designs for new and innovative approaches.

As a vital phase of the educational program, guidance cannot continue to take place in an organizational setting that has typically 400 to 500 students assigned to one guidance counselor. The disadvantaged young person, who desperately needs a close and continuous relationship with a sympathetic school person, can get little out of this kind of ratio.

A different pattern is required for helping young people through the difficult transition from school to productive employment. However, where would this pattern fit in the school's program? Perhaps occupational orientation should be thought of not only as a guidance matter, but should also command time and space in the curriculum.

Tiedeman has proposed that orientation to the world of work begin for all students as early as kindergarten level, continue through grade 12 and into the first phase of employment. Throughout the program, students will be made familiar with the opportunities and occupations available to them. More importantly, emphasis would be placed on the development of decision-making abilities and the essential character building qualities of self-appraisal and self-confidence in making choices.

The guidance counselor would play a less strategic role in such a long-term developmental project where the major weight of responsibility would rest with the student. The effect of such a program would not only produce more stable employees but more conscientious free-minded citizens.

Still, some practical questions must be asked. Where would regularly scheduled, small-group orientation sessions have a place in a vocational or prevocational program? Who would conduct such sessions? How may some of the lessons obtained from cooperative education and multi-occupational MDTA programs for young adults be applied to regular school operations? Finally, how would the cost of having a regular program of guidance and orientation on a small group basis compare with the expense of not having such a program?

"Common Sense" Approach

The motivation of students, particularly those who have rejected the general school curriculum, is an educational problem of primary concern. What is there about the vocational program—the teacher, school setting, period of time for vocational instruction, curriculum plan or instructional method—which leads to improved motivation of many vocational students? Which of these factors have the most bearing on motivation; are they independent or interrelated? How may both traditional and innovative approaches to student motivation be tested and improved?

How important is prior occupational experience of teachers in the motivation of students taking vocational courses? Do teachers who have carried a lunch pail find more success in relating to students than those who have not? For what reasons? What are some of the subtle yet pervasive waves of communication and empathy that flow between teachers and students? Can these be captured and classified through scientific inquiry? Can all insights and appreciations be taught, or do some require time and seasoning?

Additional studies are needed that focus attention on problems of motivation, curriculum content and teaching methods for slow or reluctant learners, and/or for young people with other handicaps to learning. Although a considerable body of theory relating to motivation and learning is available, its application to realistic school situations, particularly within the framework of vocational education, has only been conducted on a limited scale.

The supervised study method of individualizing instruction for diversified classes, recently "discovered" in some educational circles, *has long been employed in vocational education.* Is it not time to assess the effectiveness of supervised study techniques, not only as a vehicle for learning the subject at hand, but also for developing habits of study that might transfer to other school subjects, or for the improvement of reading skill and comprehension?

Teacher Participation in Research

The contribution that teachers can make in the identification of research problems and the early planning of experimental designs should not be overlooked. As persons in immediate contact with students, and with the various situations and problems associated with teaching and learning, they could be most helpful to college researchers. The fact that teachers generally lack the skills and techniques needed for advanced research work should be no deterrent.

A team approach to a research problem, combining the recent practical experience of teachers with the sophisticated talents of trained research specialists, may make for a more effective program of investigation than would have been feasible with either group working alone.

A second important benefit would be to the teachers themselves. Not only will they add a measure of practical application to college sponsored research and demonstration projects, but their participation will also help them to become research oriented, developing new perspectives toward objective evaluation and experimental study that could carry over into many other aspects of their daily work.

Teachers of vocational subjects have in many instances experienced singular success with disadvantaged students. They now need to document with scientific study these "common sense" approaches and practices.

BIBLIOGRAPHY

Vocational Education is People . . .

Youth With Special Needs

Completed Studies

Topic One: OCCUPATIONAL ORIENTATION

3:1 "Conference to Identify Concepts Important for Youth Orientation to the World of Work" by Warren, Mary A. University of Oklahoma, Stillwater, Okla. (Project # 5-0056) 1965. (VT # 00-2-445) 117 pages.

3:2 "New Directions in Vocational Guidance, An Institute for Counselor Education" by Wilson, Phyllis. Queens College, New York, N. Y. (Project # 5-0184) (VT # 002-472).

Topic Two: COOPERATIVE PROGRAMS

1:13 "An Experimental Vocational Education Institute for the Preparation of Teacher Coordinators of Newly Emerging High School Vocational Programs" by Samson, Harland E. University of Wisconsin, Madison, Wis. (Project # 5-0092) 1966. ERIC # ED 010 500; EDRS MF-$0.27 HC-$5.76. 144 pages.

Topic Three: DIVERSITY AND FLEXIBILITY

3:3 "Conference on Home Economics Program Development for Disadvantaged Youth and Their Families" by Gravatt, Arthur E. Pennsylvania State University, University Park, Pa. (Project # 5-0091) 1966. (VT # 002-426) 137 pages.

3:4 "The Validation of Educational Systems Packages for the Occupational Training of Depressed Area Students" by Purl, Judith. Brooks Foundation, Santa Barbara, Calif. (Project # 5-0192) 1966. ERIC # ED 010 014; EDRS MF-$0.09 HC—$5.76. 41 pages.

3:5 "A Curriculum Development Study of the Effectiveness of Up-Grading the Technical Skills of Educationally Disadvantaged Union Members" by Evans, Frank. Negro American Labor Council, Cleveland, Ohio. (Project # 6-1484) 1966. (VT # 002-493) 12 pages.

Topic Four: VOCATIONAL GUIDANCE

3:6 "Employment Status and Characteristics of High School Dropouts of High Ability" by French, John L. Pennsylvania State University, University Park, Pa. (Project # 5-0051) (VT # 002-724).

3:7 "A Developmental Program for Vocational Counselors Directed Toward Serving Disadvantaged Youth More Effectively" by Sweeney, Thomas J. University of South Carolina, Columbia, S.C. (Project # 5-0124) 1966. ERIC#ED 010 074; EDRS MF-$0.18 HC—$2.72. 66 pages.

3:8 "Analysis of Dropout Statistics in Selected Colorado School Districts" by Burrows, Earl R. Colorado State Department of Education, Denver, Colo. (Project # 5-0430) 1965. (VT # 002-446) 26 pages.

Topic Five: SPECIALLY TRAINED TEACHERS

3:9 "A Teacher Institute to Prepare Teachers and Materials for the Education of Rural, Low Achieving, Disadvantaged Junior High School Students for Entry into Vocational-Technical Programs" by Hodgson, Paul M. Delaware State Department, Dover, Del. (Project # 5-0057) 1965. (VT # 001 480) 164 pages.

3:10 "The Development of a Master Teacher Training Curriculum for Teachers of Occupational Level Training Programs" by O'Brian, John L. The State University, Rutgers, New Brunswick, N. J. (Project # 5-0171) 1966. ERIC # ED 010 161; EDRS MF-$0.27 HC—$6.44. 161 pages.

3:11 "Production of a Motion Picture for the Inservice Training of Teachers in Problems of Human Relations in Teaching the Socio-economically Disadvantaged" by Breitrose, Henry S. Stanford University, Stanford, Calif. (Project # 5-0866) 1967. (VT # 002-821) 12 pages.

Topic Six: EXPERIMENTAL AND PILOT PROGRAMS

3:12 "Opportunities and Requirements for Initial Employment of School Leavers with Emphasis on Office and Retail Jobs" by Cook, Fred S. Wayne State University, Detroit, Mich. (Project # 5-0084) (VT # 001 482) 1966. 133 pages.

3:13 "Increasing Task Oriented Behaviors" by Krumboltz, John. Stanford University, Stanford, Calif. (Project # 5-0117) 1966. ERIC # ED 010 017; EDRS MF-$0.18 HC—$4.48. 112 pages.

3:14 "A Study in Communication Between High School Teachers of Vocational Agriculture and Socio-economically Disadvantaged Youth by Use of the Semantic Differential" by McMillion, Martin B. University of Illinois, Urbana, Ill. (Project # 5-1215) 1966. (VT # 002-372) 91 pages.

ADDITIONAL STUDIES

Relating to the September Issue

1:128 "Summer School Administrative Workshop: New Horizons in Developing Vocational Education Programs in Small High Schools in Small Districts" by Green, Ertel and Biggam. University of Idaho, Moscow, Idaho. (Project # 5-0143) (VT # 002 321) 1965. 83 pages.

1:129 "Evaluation of the Effectiveness of Using Specialized Instructors in Providing Occupational Training for Industrial Jobs for High School Vocational Agriculture Students" by Teeter, Glen. Magnet Cove High School, Malvern, Ark. (Project # 5-0013) 1966. (VT # 002-392) 57 pages.

1:130 "Pilot Programs in High Schools to Prepare Students for a Wide Spectrum of Computing, Recording and Bookkeeping Occupations" by Stewart, Jeffery R. Virginia Polytechnic Institute, Blacksburg, Va. (Project # 6-8318) 1967. (VT # 003-255) 44 pages.

STUDIES IN PROCESS

Topic One: OCCUPATIONAL ORIENTATION

3:15 "Planned and Unplanned Aspects of Occupational Choices by Youth" by Ellis,

Robert A. University of Oregon, Eugene, Ore. (Project # 5-0542).

3:16 "Preparation of the Disadvantaged for Vocational Training" by Jeffery, C. R. Washington School of Psychiatry, Washington, D. C. (Project # 5-0145).

3:17 "Factors Related to Educational and Occupational Aspirations of Early Adolescent Males from Culturally Deprived Families" by Dales, Ruth. Florida State University, Tallahassee, Fla. (Project # 5-0197).

Topic Two: COOPERATIVE PROGRAMS

3.18 "Concepts and Practices in the Education, Training and Utilization of Sub-Professional Workers" by Lynton, Edith F. National Committee on Employment for Youth, New York, N. Y. (Project # 7-0095).

3:19 "In-Service Education of Office Occupations Teacher-Coordinators" by Reed, Jack. Iowa State College, Cedar Falls, Iowa. (Project # 7-0542).

Topic Three: DIVERSITY AND FLEXIBILITY

3:20 "Learning Laboratory to Teach Basic Skills in a Culturally Deprived Area" by Borata, Nicholas H. Dade County Public Schools, Miami, Fla. (Project # 5-0050).

3:21 "Revised Instructional Program for 'Slow Learners' to Improve Their Job Placement Opportunities" by Becken, Elliott D. School District 549C, Medford, Ore. (Project # 5-0063).

3:22 "Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest" by Krumboltz, John D. Stanford University, Stanford, Calif. (Project # 5-0070).

3:23 "The Development of Specialized Educational Programs for Poor Learners for Use in Non-Educational Settings" by Walker, Robert A. Minneapolis Rehabilitation Center, Inc. Minneapolis, Minn. (Project # 5-0191)

3:24 "Research and Evaluation Adjunct to an Experimental Curriculum for Dropout Prone Students in Grades 7-12" by Matthews, Charles V. Southern Illinois University, Carbondale, Ill. (Project # 5-1166).

3:25 "Utility of Educational Television in Meeting the Informational Needs of the Disadvantaged" by Mendelsohn, Harold. University of Denver, Denver, Colo. (Project # 6-1231).

3:26 "The Development of Pre-Vocational Education Literacy Courses for Use with Computer-Assisted Instruction of Disadvantaged Youths and Adults" by Smith, E., Hankins E., and Smith, T. Florida State University, Tallahassee, Fla. (Project # 6-1458).

3:27 "The Production and Validation of Education Systems Packages for Occupational Training of Depressed Area Students" by Bushnell, Donald D. Brooks Foundation, Santa Barbara, Calif. (Project # 6-2777).

Topic Four: VOCATIONAL GUIDANCE

3:28 "The Social Restoration of Young Offenders through Vocational Education" by Sullivan, Clyde E. Staten Island Mental Health Society, New York, N. Y., (Project # 5-0049)

3:29 "Floundering and Trial After High School" by Super, Donald E. Teachers College, Columbia University, New York, N.Y. (Project # 5-0065)

3:30 "Influences of the Father's Job and Social Status on the Occupational and Social Goals of Youth" by Grinder, Robert E. University of Wisconsin, Madison, Wis. (Project # 5-0121)

3:31 "Work Motivation and Problem Solving Style: A Cross-National Study of Achievement in School Children" by Peck, Robert F. University of Texas, Austin, Texas. (Project # 5-0122)

3:32 "A Cross-Cultural Study of Adolescent Subculture in Vocational Education Programs" by Lesser, Gerald S. Harvard University, Cambridge, Mass. (Project # 5-0128)

3:33 "An Investigation of the Fate and Probable Future of High School Dropouts and Potential High School Dropouts in Alexander County, Illinois" by Gallington, Ralph O. Southern Illinois University, Carbondale, Ill. (Project # 5-0700)

3:34 "Training Resources for Youth, Incorporated" by Adkins, Winthrop R. T. Dineen Training Resources for Youth, Inc. Brooklyn, N. Y. (Project # 5-1312)

3:35 "Beliefs and Values of Lower and Working Class Boys Concerning Success, Work and Education" by Herman, Mary W. Health and Welfare Council, Inc., Philadelphia, Pa. (Project # 5-8406)

3:36 "The Application of a Special Counseling Technique to Maladjusted Under-Achievers" by Winger, Leland J. State Board for Vocational Education, Oquirrh School Project, Salt Lake City, Utah. (Project # 6-8902)

3:37 "Opportunities and Requirements for Initial Employment of School Leavers with Emphasis on Office and Retail Jobs" by Cook, Fred S. Wayne State University, Detroit, Mich. (Project # 6-1968)

3:38 "Raleigh-Durham Area Vocational Guidance Institute for Counselors of Minority Youth" by Coltrane, David S. North Carolina Governor's Good Neighbor Council, Raleigh, N.C. (Project # 7-8456)

Topic Five: SPECIALLY TRAINED TEACHERS

3:39 "Establishment of Three Centers to Improve the Preparation of Teachers of Culturally Disadvantaged Students, Emphasizing Technical Vocational Education" by Lawrence, Paul. California State College, Hayward, Calif. (Project # 5-0243)

3:40 "An Evaluation of Vocational Education for Disadvantaged Youth" by Sommerfield, Donald A. Muskegon City Public Schools, Muskegon, Mich. (Project # 6-1831)

3:41 "Interdisciplinary Approach to Preparing Home Economics Leaders for Emerging Programs Serving Disadvantaged Youth and Adults" by Garrett, P. G. University of Missouri, Columbia, Mo. (Project # 6-1936)

3:42 "Seminar for Supervisors and Teacher Educators for Persons with Special Needs" by Lamar, Carl. University of Kentucky, Lexington, Ky. (Project # 7-0527)

Topic Six: EXPERIMENTAL AND PILOT PROGRAMS

3:43 "A Demonstration Training Program for Potential School Dropouts" by Roam, John E. Quincy Public Schools, Quincy, Ill. (Project # 5-0003)

3:44 "A Pilot Project to Develop a Program of Occupational Training for School Alienated Youth" by Becker, Harry A. Norwalk Board of Education, Norwalk, Conn. (Project # 5-0005)

3:45 "An Experimental Program to Compare Education Versus Training for Young School Dropouts" by Kaufman, Jacob. Pennsylvania State University, University Park, Pa. (Project # 5-0060)

3:46 "The Re-Education of the Culturally Deprived Dropout" by French, John R. University of Michigan, Ann Arbor, Mich. (Project # 5-0075)

3:47 "Demonstration: An Educational Program on Slow Learners in Grades 7-12" Matthews, Charles V. Southern Illinois University, Carbondale, Ill. (Project # 5-0086)

3:48 "Improved Opportunities for Disadvantaged Youth Through Vocationally Oriented Education" by Phipps, Lloyd J. University of Illinois, Urbana, Ill. (Project # 5-0125)

3:49 "Study and Development of Programs of Shop-Centered Team Teaching for Potential High School Dropouts" by Odell, William R. Stanford University, Stanford, Calif. (Project # 6-8524)

Availability of Reports for Further Study

All reports which are followed by the letters ERIC and an acquisition number like ED 010 000, may be purchased from the ERIC Document Reproduction Service, Microphoto Division, Bell and Howell Company, 1700 Shaw Avenue, Cleveland, Ohio 44112. The letters (MF) indicate the availability of microfiche copies; and (HC) for hardbound copies, at the prices given.

In cooperation with the ERIC Clearinghouse for Vocational and Technical Education at The Ohio State University, *Research Visibility* is attempting to alert the profession at the earliest possible moment to significant publications. In providing this early announcement it is not possible to assure that sufficient time has been allowed for processing and inputting the documents into Central ERIC. These reports have been assigned a VT number. A facsimile copy of each entire report, only, may be obtained at cost. Address requests for VT numbered reports to: Retrieval Specialist, ERIC Clearinghouse, The Center for Vocational and Technical Education, Ohio State University, 980 Kinnear Road, Columbus, Ohio 43212.

Important: Later issues of *Research Visibility* will contain ERIC document numbers for publications that were listed in earlier issues and assigned only a VT number. After these documents have been accepted by ERIC and given an ED number, the requests for microfiche and hard copy should be directed to ERIC Document Reproduction Service.